

# TECHZICAL SUPPORT 2013

### "" PHENIX WEEKLY PLANNING



5/23/2013 Don Lynch

### **TECHZICAL** SUPPOR T 2013

### This Week

- Run 13 Continues: run support, general maintenance
- Scheduled maintenance Access yesterday:
  - DC HV MF replacement
  - PbSc work
  - DAQ work
- mRPC Test Lab (Formerly RPC Factory) Startup
- Ethane Trailer pre-liminary walkthru: (final walkthru when 1st trailer arrives before run 14)
- Continue VTX strip pixel stave prototype evaluation and production order placed
- Window Washer Winch order placed
- sPHENIX HCal prototype steel order pinned, out for bids
- Continue sPHENIX support
- Continue MPC-Ex design
- Future IR evolution modeling



### TECHZICAL SUPPOR T 2013

### Next Week

- Run 13 Continues: run support
- No Scheduled Maintenance next week?:
- next maintenance day: ?
- Ethane Tube Trailer Upgrade Continues: Procedure Approval
- mRPC Test Lab (Formerly RPC Factory): Walkthru done, actionitems addressed, procedure approval
- VTX strip pixel stave re-design prototype evaluation
- Continue sPHENIX support
  - HCal prototype
  - EMCal prototype design continuing
- MPC-Ex design for run 14
- Future IR evolution modeling STAR and PHENIX eRHIC upgrades to be







Ethane Trailer Project: In progress

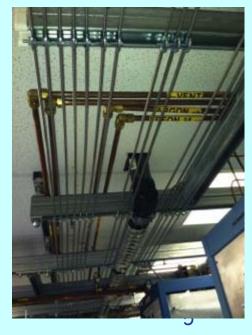
# TECHNICAL SUPPORT 2013

### New Gas Analyzer Project (RPC recirculation and more)











### mRPC Test Lab Project





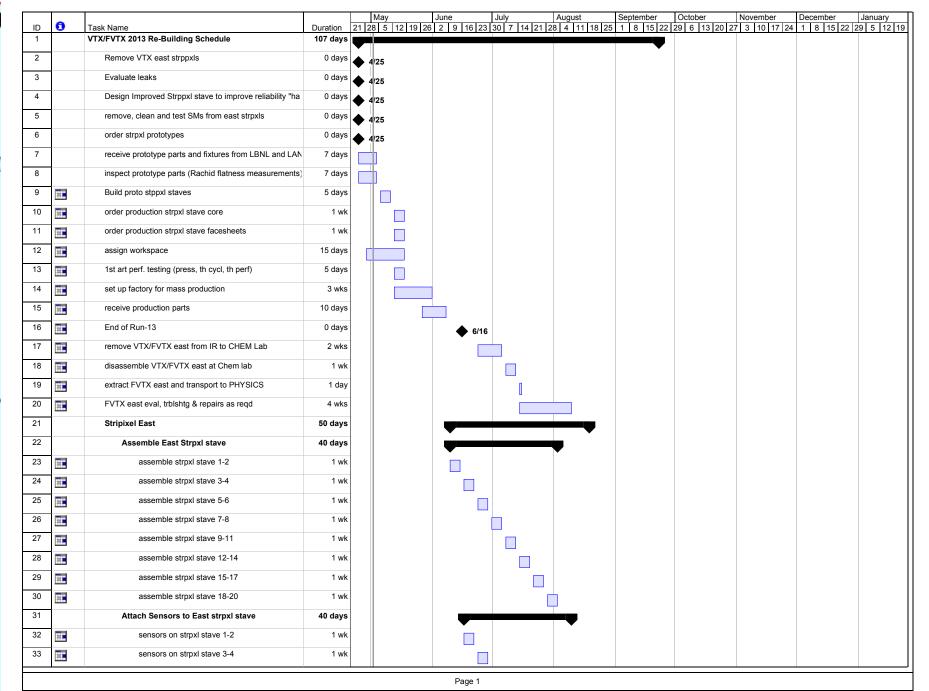




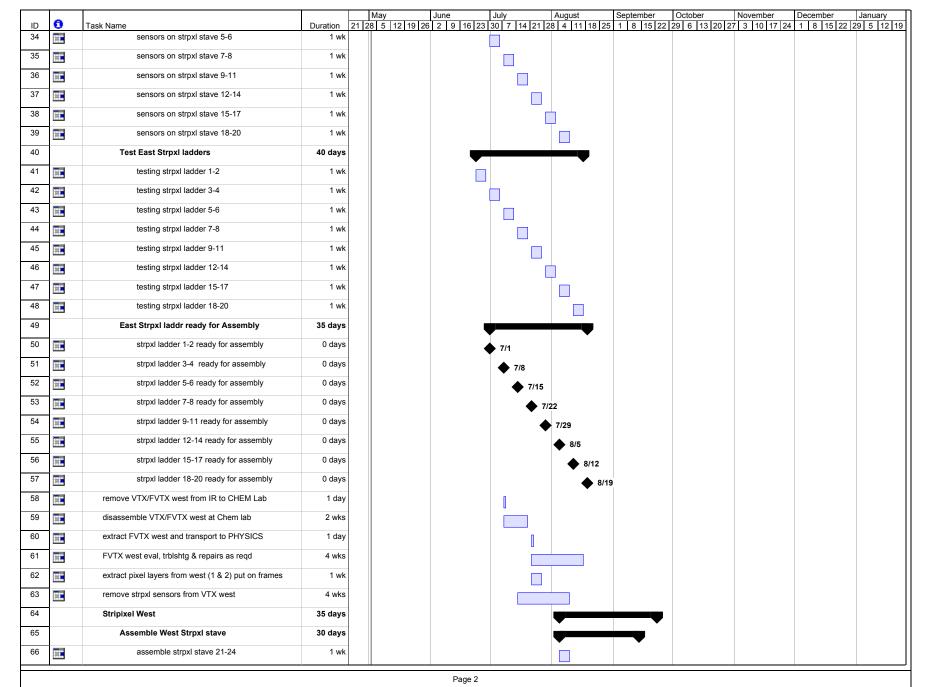
1st preproduction test article assembled, evaluated, production parts ordered, 3 more preproduction test articals in progress, performance tests next week



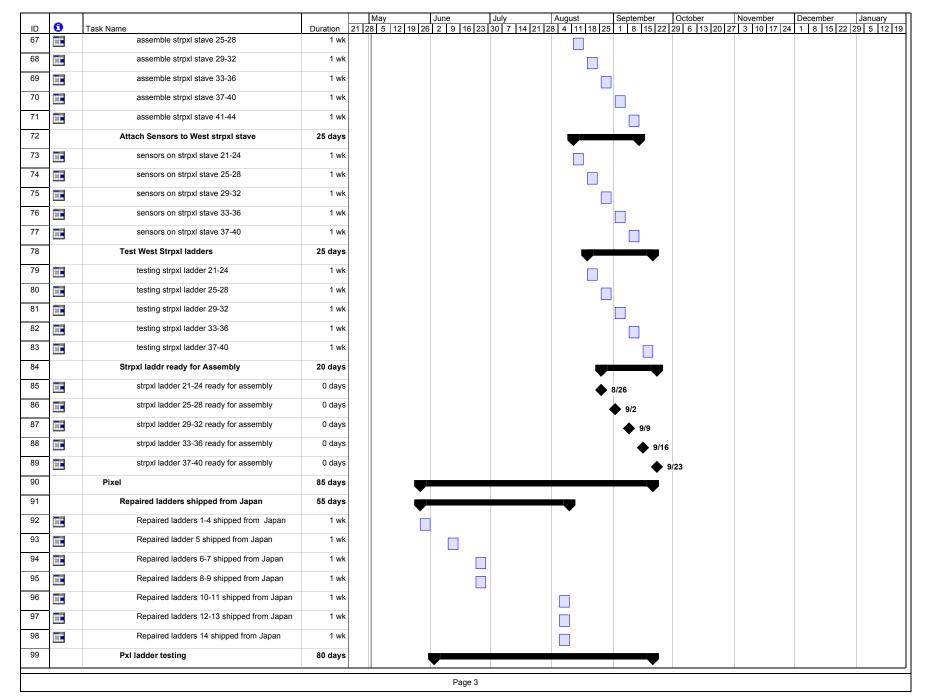
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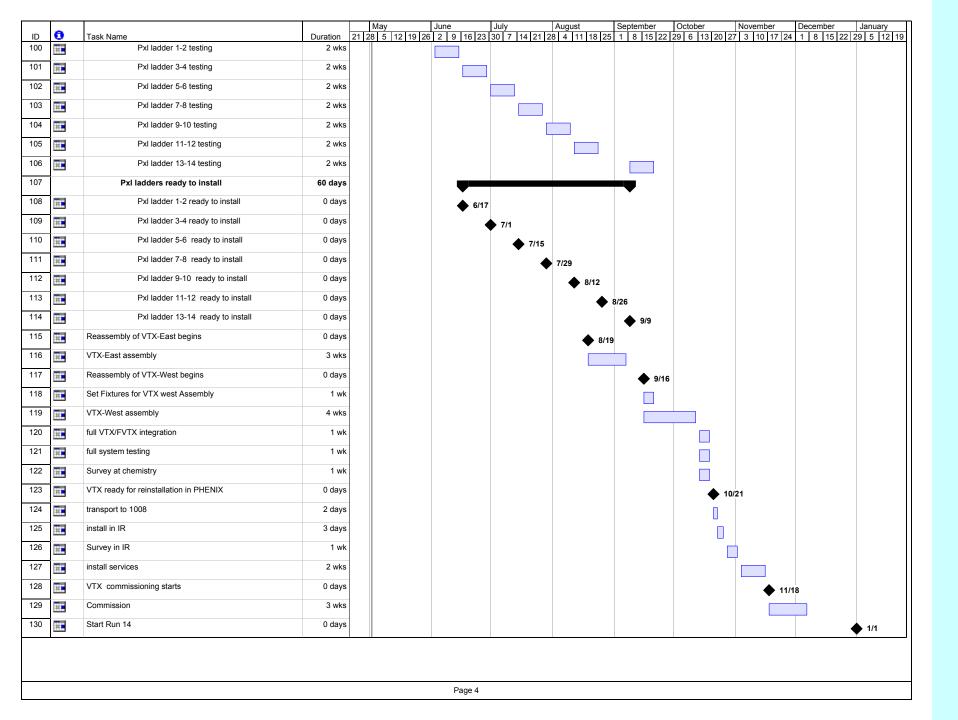


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Existing vacuum bellows anti-squirm In MPC S Cavity



Proposed vacuum bellows antisquirm in MPC S Cavity to accommodate MPC-Ex





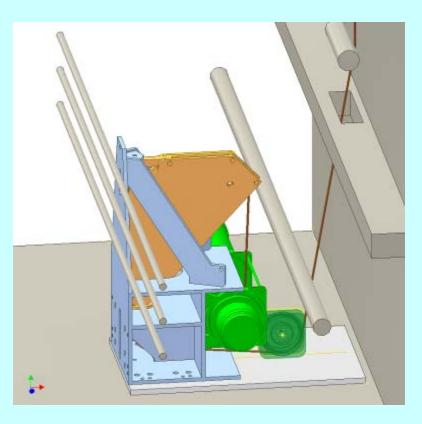
1st Tungsten Plate received: Inspection OK



**TECHZICAL** 

SUPPORT 2013

### Window Washer Winch Upgrade



Purchase Order Placed



Quotation #: 83944R1

Quotation Date: April 23, 2013 Page: 1 of 5

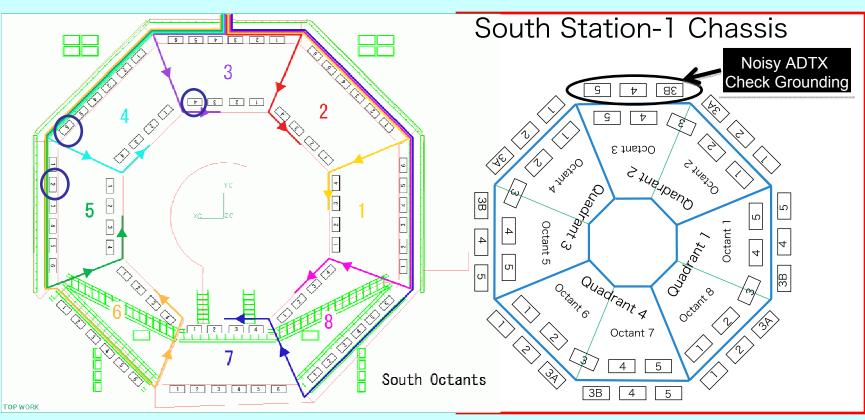
Attention: Donald Lynch

Company: Brookhaven National Lab

|           |           | 44-2253 information provided to us for an AC hoist to be used for lifting, w   | e are pleased          | d to propos           |
|-----------|-----------|--|------------------------|-----------------------|
| Line<br>1 | Qty.      | Product:  Columbia HF2100-2A17-L-03 AC Electric Hoist  2.0 HP TEFC UL-listed brakemotor  230/3/60 input power  Automatic, load-suspending braking system  Permanently lubricated, high-efficiency planetary gear reduction  Argent gray enamel paint finish  Includes single speed low voltage controls  Reversing motor starter in a NEMA 4X fiberglass enclosure  UL-listed  Includes NEMA 4X hand-held pendant control with UP/DOWN momentary contacts and up to 15' lead | Net Each<br>\$5,022.00 | \$5,022.0             |
| Option    | ns:       |  |                        |                       |
| Line<br>2 | Qty.<br>1 | Product:  AutoAdvance Line Spooler  Designed and built for Columbia HF2100-2A17-L-03 Incoming line from front of spooler  Fabricated steel frame  Sheaves are steel construction, grooved for 3/8° line Ensures proper line spooling regardless of fleet angle Rope tension must be maintained for proper operation  | Net Each<br>\$3,298.00 | Extender<br>\$3,298.0 |
| Line<br>3 | Qty.      | Product:  VLS-6 Vertical Lead Sheave  • 6,000 lbs load limit  • Can be bolted down or welded for installation  • Fabricated steel construction  • Offset design allows for simple installation at any angle  • Bronze bushed steel sheave grooved for 3/8" wire rope   | Net Each<br>\$458.00   | Extended \$458.0      |
| Line<br>4 | Qty.      | Product: Wire Rope  • 200' of 3/8" stainless steel wire rope (7x19 construction) with latching hook  • Supplied loose  | Net Each<br>\$684.00   | Extende<br>\$684.0    |

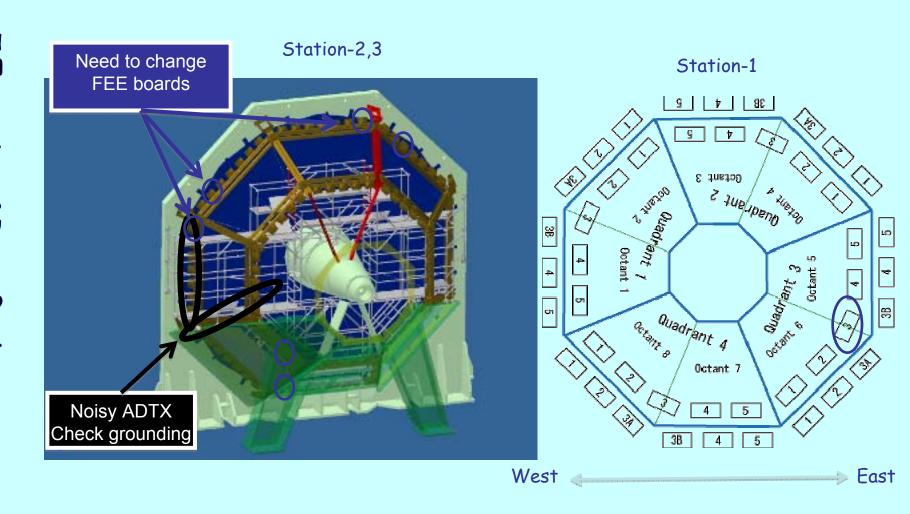
### MuTr South Arm Areas to be accessed

Station-2,3



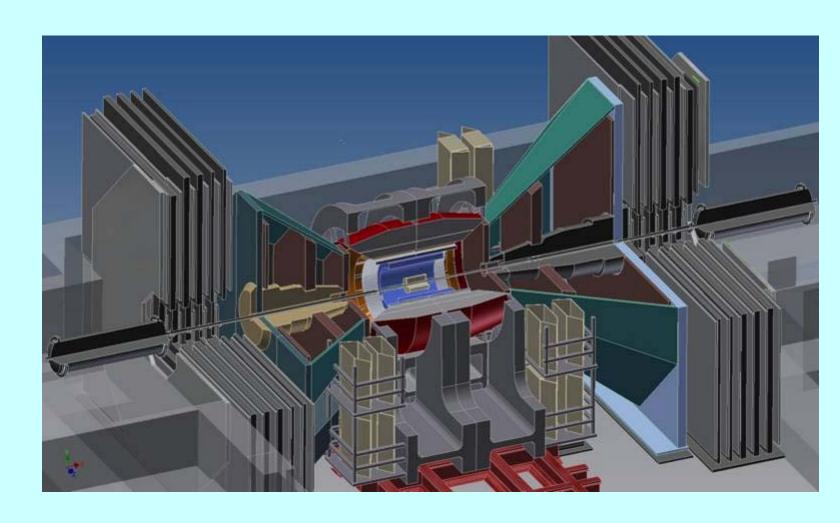


### MuTr North Arm Areas to be accessed



**PH**\*ENIX

### **sPHENIX**



### PHENIX

### EXTENSION WALE RATE SPALE BULL STATE SPALE

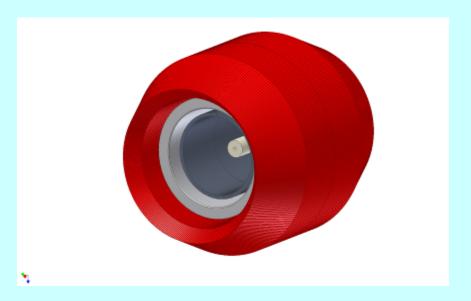
### sPHENIX Proposed Upgrade

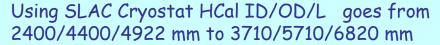
Work continues evaluating engineering tradeoffs for EMCal and HCal design, materials, etc.

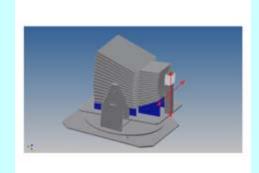
Prototype HCal and EMCal in progress

Bid packages for Hcal steel and scintillators in progress to be issued this week

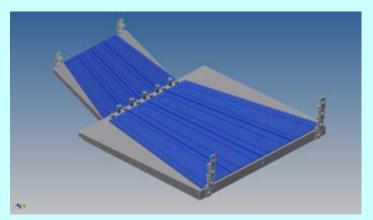
Possible magnet change to available SC solenoid from SLAC. Will change all detector parameters



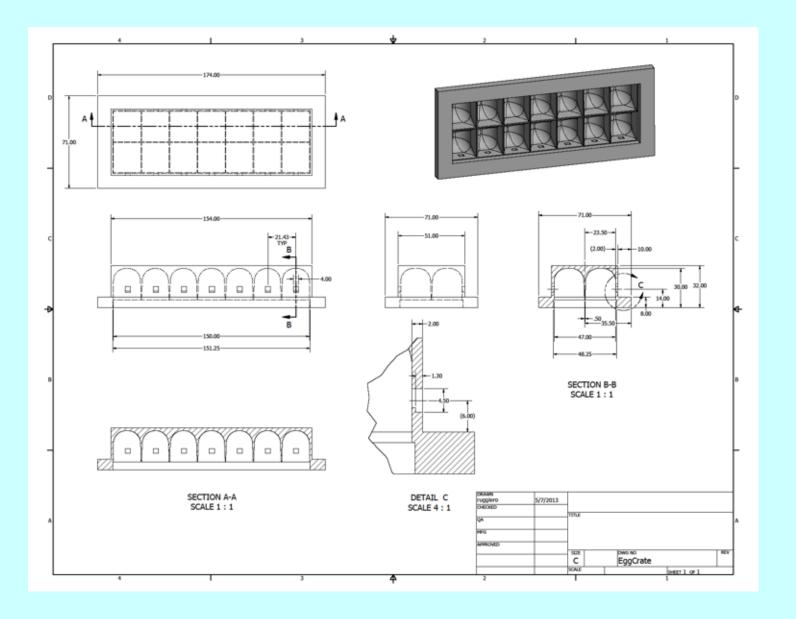


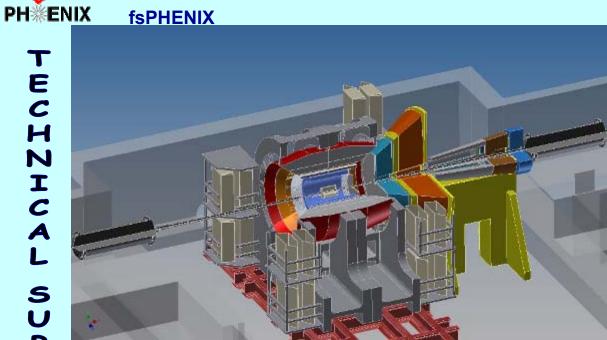


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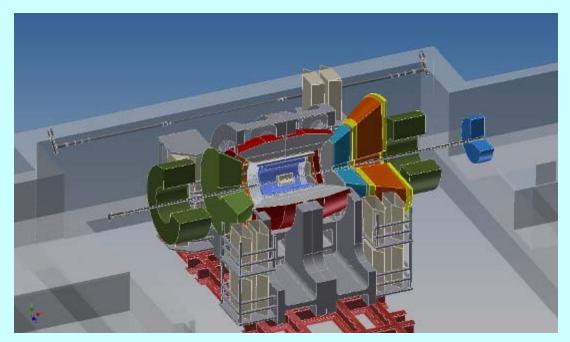
# **TECHZICAL** SUPPOR 2013





sPHENIX Collaborators meeting in Santa Fe this week. The Path from current PHENIX to sPHENIX evolving to fsPHENIX and ultimately to ePHENIX is beginning to be mapped out along with efforts to focus in on details of SPHENIX.

### **ePHENIX**



### Major Projects This Summer:

- VTX repairs/upgrades/general maintenance (Mike L.)
- DC East Window Replacement (Kenny J.)
- MPC-Ex Initial (partial) Installation (Jim L.)
- mRPC Tests in mRPC Test Lab (formerly RPC Factory) (Frank T.)
- sPHENIX Prototypes assembly & tests (All)
- MuTr troubleshooting and Repairs (Chris P.)
- Window Washer Winch upgrade (Jim L.)

### Other Mechanical (TBD)

### Other Electrical Projects

- HVAC Controls Upgrade (Frank T.)
- Complete Window Washer Controls Upgrade (Frank T.)

### Other Electronics Projects

- Additional upgrading of ADAM system to MODBUS (Sal P.)
- Electronics research in support of sPHENIX and RATCAP (Sal P.)
- Lecroy HV comminuications upgrade (Sal P.)

### Other Gas System Projects (TBD)

- RPC Gas Recirc. Upgrade (John T.)
- Drawing and Config. Control Improvements (SULI Student)

### Other Infrastructure Projects (TBD)





| <b>TECHZICA</b> | Prep for 2013 shutdown  Design, Fabricate MPC-Ex  Define tasks and goals  Analysis and design of fixtures, tools and procedures  Fabricate/procure tools and fixtures  Tests, mockups, prototypes  Receive, fabricate, modify, finish installables  Review and approval of parts, tools, fixtures and procedures  Assembly and QA tests                               | 2/11-6/11/2013  |
|-----------------|---|---|
| L SUPPORT 2     | VTX Strippixel redesign  VTX Strippixel 1st article stave assembly  VTX Strippixel 1st article qualification/performance tests  VTX strippixel stave production  VTX Strippixel sensor reclamation  VTX Strippixel ladder assembly  Pixel Ladder repairs  End of Run Party  Run 12 Ends  Shutdown Standard Tasks  • Open wall, disassemble wall, Remove MuID Collars, | In-progress 5/3/2013 5/17/2013 5/20-8/30/2013 4/1-8/30/2013 6/1-9/27/2013 in progress 6/6/2013 6/11/2013 6/11-7/19/2013 |
| 0 1 3           | • Move EC to AH, etc.  VTX/FVTX Post run tests  Disassemble VTX/FVTX services  July 4 <sup>th</sup> Holiday  Remove VTX/FVTX and transport to Chemistry Lab  Assemble, Test and Install MPC-Ex (North only?)  | 6/11-6/12/2013<br>6/12-7/3/2013<br>7/4-7/2013<br>7/8/2013<br>7/22-10/1/2013   |



### TECH MuTR Troubleshooting, maintenance and repairs 7/22-9/27/2013 Summer Sunday (8/11) Prep and teardown 7/29-8/6/2013 ZIUAL Summer Sunday (RHIC) 8/4/2013 DC East Window Upgrade and Related Repairs 8/19-9/27/2013 sPHENIX HCal Prototype Assembly/test Labor Day Holiday Repair upgrade, reassemble VTX/FVTX (pixels and strip-pixels) Test, survey (at Chemistry and IR) and re-install VTX/FVTX Other detector maintenance as required Infrastructure maintenance as required TBD prototype tasks Pre-run commissioning and prep for run 14 Veterans Day, Lab Holiday Prep for EC roll in Roll in FC

Prep IR for run

Thanksgiving Holidays Pink/Blue/White sheets

Christmas Holiday

New Year's Day Holiday Start run 14

8/19-10/15/2013 9/2/2013 7/11-10/13/2013 10/16-10/27/2013 As required As required As required 11/1-12/31/2012 11/11/2013 11/1-11/9/2013 11/10-11/12/2013 11/1-11/30/2013 11/28-29/2013 12/14-12/31/2013 12/24-25/2013 1/1/2014 1/2/2014

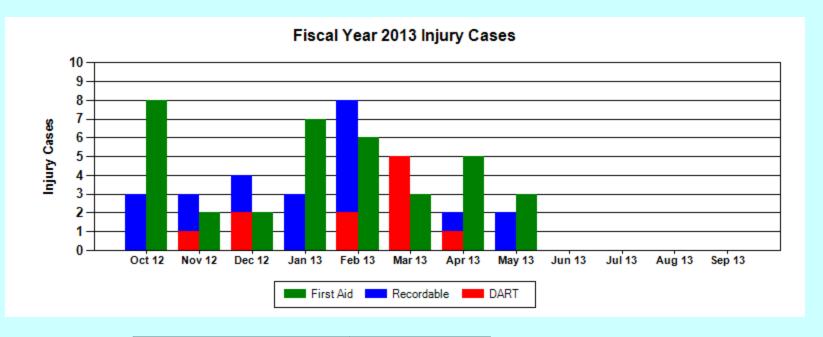
# TECHZHCAL SUPPORT 2013

CPR Training: The next 2 CPR Training sessions are closed (full). Next available training dates are: Friday June 21 (1:30-4:30 PM and Wed. June 26 1:30-4:30)



### **BNL Occupational Injury Status**

First Aid, DOE-Recordable, and DART Cases



| YTD Cases   | Rates |      |
|-------------|-------|------|
| DART:       | 11    | 0.65 |
| Recordable: | 30    | 1.64 |
| First Aid:  | 36    | N/A  |





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| ;<br>1<br>1  | 5/18/2013 | Site<br>Resources<br>Division     | An employee slipped while walking in sand, injuring the lower arm. The employee received prescription medication at the ER, making this recordable. | DOE Recordable   |
|--------------|-----------|-----------------------------------|---|--|
|              | 5/17/2013 | Biosciences<br>Department         | A graduate student was transported to the ER with an illness. This was determined not to be work-related.   | This injury is not included in the BNL rates. This is for information purposes only. |
|              | 5/17/2013 | Site<br>Resources<br>Division     | An employee injured a leg dismounting from a vehicle. At the clinic, first aid was given.   | First Aid  |
|              | 5/13/2013 | Photon<br>Sciences<br>Directorate | An employee struck his finger against a sheet metal edge, lacerating his finger. At the ER, sutures were completed making this a recordable case.   | DOE Recordable   |
| )<br> <br> } | 5/13/2013 | Site<br>Resources<br>Division     | An employee working alone complained of muscle strain from custodial chores the next daymore later  | First Aid  |





### Where To Find PHENIX Engineering Info



Memorial Day Next Monday May 27 is a Lab Holiday

- Originally known as Decoration Day, originated after the US Civil War to commemorate soldiers on both sides who died in the war
- First known observance in May 1865, Charleston Race Course
- Officially observed May 30 1968 by proclamation of General John A Logan
- Date chosen because it was not the anniversary of any battle.
- Irontown Ohio has longest continuously running Memorial Day Parade (since 1868)
- Became commonly called Memorial Day after WWI
- Became Officially Memorial Day by federal law in 1968 and then moved from May 30 to the last Monday in May.
- Proper Memorial Day Flag etiquette: Early morning: raise guickly to full mast then lower slowly and solemnly to half mast. At noon raise slowly to full mast.

Remember to Remember those who gave their lives so we can enjoy ours.

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\_SSint-page.htm 5/23/2013

